

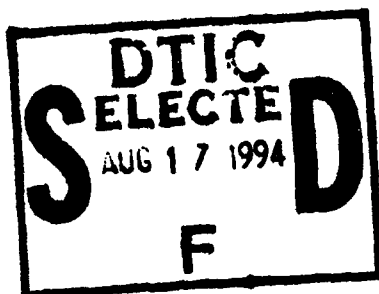
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THE OPERATIONAL RESERVE CARRIER:
A TIMESHARE CO-OPERATIVE OPPORTUNITY FOR
MARINE TACAIR AND THE NAVAL RESERVE CARRIER AIR WING



by

Thomas F. Nagelin, Jr.
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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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PREFACE

To the best of my knowledge, and based upon my research, the concept of an aircraft carrier being employed on a time share basis between the USMC and USNR tactical air wings has not previously been proposed or examined. Breaking down the concept into components, I have not found any recent information concerning a proposal for a USMC air wing to have exclusive use of a CV deck either within a time share or on any other basis. Single USMC squadrons are currently assigned within embarked Navy air wings, reporting to Navy Air Wing Commanders, and this then becomes the closest relevant USMC material from which to work.

The concept of an Operational Reserve Carrier will become a reality soon and therefore, on this subject, there is some material to draw upon. This material is mostly in the form of working papers which I examined during a 14/15 April 1994 visit to OPNAV 955D. At that time I also interviewed the O-6 who is the current Naval Reserve CV "guru". Around the fringes of the subject there is adequate material to draw upon, from which to piece together such a concept as proposed within.

For the purposes of this paper, USMC Tactical Aviation (TacAir) will be narrowly defined to include only catapult and arresting gear dependent carrier aircraft, the F/A-18 Hornet and the EA-6B Prowler.

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**THE OPERATIONAL RESERVE CARRIER:
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CHAPTER I

INTRODUCTION

The Problem. At H-hour on D-day, when it is time for the "grunts" to "kick in the door" with an amphibious assault, USMC Tactical Aviation (TacAir) must be in position, ready to counter enemy air and provide Close Air Support (CAS). While the Corps' TacAir awaits the securing of a Naval Expeditionary Air Field (NEAF) or other such battlefield-proximate airfield ashore, they must in the interim, have an effective base from which to operate. Friendly air bases too distant from the ground forces adversely impact the Corps CAS effectiveness. The Corps' TacAir must have a carrier deck, within the Amphibious Ready Group (ARG), from which to operate during an action's early phase.

A Solution. The USS John F. Kennedy (CV-67) is slated for service as an Operational Reserve Carrier (ORC). She is an existing asset, certain to have ample availability and capability beyond the Naval Air Reserve and Training Command missions. "Double hatting" CV-67 in a dual role, serving both USMC and USNR TacAir, would double her contribution to defense and in so doing, satisfy a sorely needed capability not available from any other source. During peacetime, the ORC would serve the training needs of both USMC and USNR TacAir as

well as fulfill various other assignments. During a crisis, the ORC would transport, support, and operate USMC TacAir as an integral part of a Marine Air-Ground Task Force (MAGTF). The TacAir portion of the USMC Air Combat Element (ACE) would operate from CV-67 until the opportunity would allow the ACE to disembark to a captured airfield or to an established NEAF. Meanwhile, if mobilized, the Naval Reserve Carrier Air Wing (CVWR) would prepare for deployment. The ORC would then embark the CVWR and redeploy as tasked.

CHAPTER II

U.S. MARINE CORPS TACTICAL AVIATION

Marine TacAir's Purpose. The premiere fighting force in the world today is the United States Marine Corps, especially as employed in a Marine Air-Ground Task Force (MAGTF). As one of the three elements which comprise a MAGTF, the Air Combat Element (ACE) conducts all Marine Air operations. Within large MAGTFs such as a Marine Expeditionary Force (MEF) or a Marine Expeditionary Brigade (MEB), the fixed wing TacAir aircraft are an important part of the ACE. They are part of one element designed for the rapid conduct of maneuver warfare through time and space.

Particularly with the demise of Naval Gunfire Support (NGS) and given the Corps' necessarily light expeditionary artillery, the MAGTF commander must increasingly rely upon fixed-wing Close Air Support (CAS) for heavy ordnance delivery in support of the Ground Combat Element (GCE) and the Combat Service Support Element (CSSE). In order to be an effective expeditionary force, the MAGTF's GCE must remain light for the conduct of rapid maneuver warfare. The mobile, heavy fire support provided by TacAir in the CAS role serves as the MAGTF's primary heavy ordnance delivery system. The availability and proper employment of TacAir then directly impacts the GCE's ability to succeed with their unique brand of fast paced maneuver warfare.¹

A superb CAS capability is only one of the many missions, including Deep Air Strike (DAS), Battlefield Air Interdiction (BAI),

reconnaissance, Airborne Forward Air Control (FAC(A)), and Anti-Air Warfare (AAW) for which Marine TacAir is responsible. Given limited assets, particularly those of time and funding, all of these missions must be carefully prioritized as training requirements during peacetime. During a MAGTF combat operation, the ACE commander must balance the distribution of his limited TacAir equipment and manpower assets across the entire spectrum of missions. Always paramount is the support of the GCE. Without the CAS and AAW support, the GCE's light forces could be slowed, stopped, or reversed by heavy enemy defenses or a sound enemy counter-offensive. "Marine aviation ensures that Marine forces remain light and mobile enough to respond quickly to crisis, yet powerful enough to accomplish their mission."²

Why Marine vice Air Force or Navy TacAir? USMC TacAir is unique and has no acceptable substitute. It is said that all Marines are riflemen first and that the aviator's primary mission is to support the ground forces. The Marine pilot knows the environment and the personnel being supported.

"Being an arm of the MAGTF requires aviators to have a thorough understanding of ground warfare - just as thorough as that of ground officers. . . . Understanding ground warfare enables pilots to support not only the ground force itself, but also the ground commander's scheme of maneuver. . . . Guided by the ground commander's intent, they will quickly act on their own initiative, because they will understand the results that are needed for the ground battle's success."³

The superb capability of Marine TacAir to maneuver rapidly through the time and space elements of a maneuver warfare problem,

delivering heavy weapons quickly and with relative surprise, gives the MAGTF commander a significant advantage over the enemy. Marines understand this advantage and depend on exploiting it to the fullest extent in any future MEF or MEB action.

It is well established that the U.S. Air Force has long disdained the CAS mission as an inefficient use of air power, as an expensive substitute for artillery, and therefore to be placed low in priority for the commitment of air assets. The U.S. Army's resulting large CAS air force is direct testimony to the USAF's lack of commitment to the CAS mission. As for Navy TacAir, CAS is an important and trained to mission, however it is usually less than top priority, as it is only one of many missions which surround naval warfare tasking. As the Navy moves ". . . From The Sea" and into the littorals with the CVBG, Navy TacAir will increase its emphasis on CAS but never to the degree of USMC TacAir in its support of the GCE. The Commandant of the U.S. Marine Corps, General Carl E. Mundy, Jr., stated that . . .

"Finally, unlike either Navy or Air Force squadrons, Marine aviation units are an integral element of an air-ground combat system. They are not merely joined at the top when the time comes to fight. They are fully integrated from top to bottom, and they train to fight that way full-time."⁴

The Mission Obstacle. As established above, Marine TacAir is critical to the success of most MAGTF missions. TacAir must be operational from the very beginning of an action. Currently, the big show stopper for TacAir is the absence of an acceptable airfield from which to operate. It is widely accepted that future conflicts most

probably will not offer the convenient battlefield-proximate basing arrangements as exploited in Desert Storm. Distant air bases absolutely diminish the Corps' capabilities to support CAS and other MAGTF missions. Slower response time, reduced time on station, decreased ordnance loads, increased aircraft cycle time, decreased sortie count, increased dependence on in-flight refueling, decreased aircrew situational awareness of a rapidly changing battlefield and increased aircrew fatigue from prolonged flights are all major drawbacks to remote basing of TacAir. The Marine Corps has long recognized these serious shortcomings and has developed an ingenious, combat proven solution, the Naval Expeditionary Air Field.

The Naval Expeditionary Air Field Solution. The NEAF, as the name implies, is a portable airfield, complete with all of the necessities, with a size and layout custom to the individual MAGTF's need. The NEAF has the capability to provide a fully functioning combat air base, close to the front lines, which allows CAS missions to be flown from as far forward as possible. Relatively portable, the NEAF may be relocated as the Forward Edge of the Battle Area (FEBA) moves over time. The NEAF, properly supported, can sustain combat operations indefinitely, even under adverse weather conditions. With substantial quantities of NEAF material now in the inventory, this would seem to be the perfect solution, however . . . first you must seize and secure the territory upon which to build the NEAF and then it takes time, . . . a relatively long time, up to three months to transport and construct a NEAF.⁵ This means that a NEAF will not be available for the opening phase of an operation, that phase which is so critically important to the success of a MAGTF.

The Marines Warfighting doctrine states that . . .

"Maneuver warfare is a warfighting philosophy that seeks to shatter the enemy's cohesion through a series of rapid, violent, and unexpected actions which create a turbulent and rapidly deteriorating situation with which he cannot cope."⁶ "Marines sought their own tactical air because gaining air superiority over the landing area has been the primary consideration when establishing forces ashore. A landing on the shores of a hostile nation is likely to invoke an immediate and violent response from enemy air, and it is the initial phases of the operation that are most vulnerable to disruption by air."⁷

So the need for Marine TacAir is clearly established and the beginning of an action is precisely when the need for that TacAir is greatest. Therefore, neither distant airfields nor the NEAF offer acceptable solutions for USMC TacAir on D-day.

The USN / USMC Air Wing Integration Solution. The CVs have been around a long time, but for the most part, they have been fully employed by the USN air wing's seapower and power projection missions. As a capital ship too valuable during the cold war to allow the specialized USMC mission exclusive use of a deck, then as now, the Marines often embarked a single squadron to operate within the USN air wing. As the Navy continues to transition to littoral warfare, the Navy TacAir mission will, of necessity, increase its emphasis on CAS. However, this mission shift and the USMC presence does not guarantee the embarked USMC squadron's total dedication and priority to the MAGTF commander's mission. Instead, that USMC squadron is obliged

to go along with its USN counterparts, wherever the CVBG's mission may take them.

Concerning USN / USMC carrier integration, some observers have expressed concern that this spells the beginning of the end for Marine TacAir, as it folds one squadron at a time into Navy carrier air wings. Others suggest that as the Navy shifts to littoral warfare, this integration will present an opportunity for USMC TacAir to sharpen the Navy's CAS awareness and skills, to the Corps' advantage. With either outcome, under this arrangement, the MAGTF commander loses his TacAir assets to several Navy air wing commanders scattered among so many CVBGs. This is not a good formula for the success of the MAGTF.⁸

The Marines must be allowed to concentrate on their unique MAGTF mission, in training and in conflict. They must be allowed to operate from ashore as close to the ground element as possible, as soon as possible. When offered a CV deck, the possibility of entrapment aboard the CV becomes a "hot potato" from the USMC perspective. In the past, full use of a CV would have been threatening from the standpoint that Marine TacAir could have incurred a permanent CVBG obligation, been forced into adopting appropriate USN roles and missions, or worse, so as not to leave a "high value unit" with an expensive, empty deck, the USMC TacAir would be forever tied to the ship, not allowed to jump ashore at the earliest possible time in a conflict. For all the reasons above, the advent of an ORC offers by far the best solution.

The Operational Reserve Carrier Solution. The answer to the TacAir basing problem lies in the immediate, although temporary, exclusive use of an aircraft carrier until such time as the NEAF is ready

for operations. After all, this fits precisely what the carrier is all about, a mobile combat expeditionary air base, complete with all support, in the enemy's face.

Given that the TacAir composition within an ACE is custom built to the MAGTF's needs and missions, a typical MEF might contain one EA-6B and six F/A-18 squadrons, a total of 78 aircraft, an easy fit aboard CV-67. The air wing aboard the ORC would be commanded by a Marine and the ORC would be an integral part of the MAGTF's Amphibious Ready Group (ARG), rather than part of a CVBG.

The ORC would have its limitations. For example, if aboard an established NEAF, this same air wing could generate the full number of sorties anticipated to be required by the MEF "in sustained operations in a high threat environment."⁹ The ORC will be capable of generating more than 200 sorties per day.¹⁰ Although this number is somewhat less than a smooth operating NEAF could produce, the ORC, with its virtually all Hornet deck, can come close enough, especially in light of the paucity of alternatives. Reducing in-flight delays can reduce the average sortie length and thereby increase the sortie count. Further increases can be accomplished by flex-deck operations that keep a ready deck on arrival, combined with less airborne holding time prior to weapons delivery.¹¹ While embarked in the ORC, the MAGTF's KC-130 in-flight refueling (IFR) assets would be based ashore, at some distance, awaiting the NEAF's availability. With routine coordination, these tankers as well as USAF strategic assets would support the ORC's air wing. CVBG E-2C Hawkeyes or USAF AWACS would provide the necessary airborne control until the ACE has established the Marine Air Command and Control System (MACCS) ashore.

The fear that the CV may have to temporarily withdraw from the objective area for defensive reasons is always a possibility¹², however it is much more remote than in 1942 Guadalcanal where the enemies navy and air force were on par with our own. Also, with our modern aircraft range and speed, complemented by in-flight refueling, the CV can beat the enemy littoral mine and diesel submarine threat while continuing to support the Marines ashore. This option remains far superior to land based TacAir, stationed much farther away, perhaps several hours distant from the battlefield.

CHAPTER III

U.S. NAVAL RESERVE CARRIER AIR WING

The Naval Reserve Carrier Air Wing's (CVWR) Purpose.

The Navy is forecasted to maintain 12 carriers and 11 air wings into the future, the ORC and CVWR included. Currently two CVWR's, soon to be only one, is most likely to be mobilized to deploy aboard the ORC only in the case of a simultaneous second Major Regional Conflict (MRC). "In the last forty-five years, the Navy has yet to commit more than six carriers to a major conflict simultaneously."¹³ Current plans anticipate the deployment of eight to ten CV/N's within 4 months in the event of two MRCs.¹⁴ The CVWR, upon mobilization, is structured to match the USN air wings in roles, missions and its capabilities to meet these requirements. The CVWR consists of the following squadrons; one F-14A, two F/A-18A, one EA-6B and one E-2C. The following would be added at the time of mobilization; one S-3B and one SH-3 squadron. The addition of a USMCR F/A-18A squadron to the air wing is currently under study. The intent is to mirror the regular Navy air wings.

All Hornet Air Wing. As the eleventh air wing, the CVWR will not, in any imagined scenario, be the first to fight, and in all probability, by the time the CVWR is employed, it will arrive on free seas, under a blanket of air superiority long established. Therefore, the task which the CVWR should be prepared to master is ground attack. This then could suggest a more effective mix of aircraft, specifically an all strike fighter air wing with the elimination of the Tomcat. Tactically, the

shorter legs of the Hornet are now less of a disadvantage when employed in littoral operations and as employed in the CAS role. As one example of the many advantages of the F/A-18 over the aging F-14A, measured in mean time between failure, the Hornet (3.6 hours) enjoys the best of all TacAir aircraft, some four times better than the average Tomcat (0.8 hours).¹⁵ Maintenance man-hours per flight hour, turn-around time, sortie generation rates, squadron personnel roster size and virtually all other measurements are clearly in favor of the Hornet. The CVWR support requirements while embarked in the ORC would be significantly reduced without the F-14A. The all strike fighter air wing would be less costly to maintain and far more capable in the ground attack mode.

CHAPTER IV

THE OPERATIONAL RESERVE CARRIER

The ORC Concept.

"The concept of converting a conventional active duty carrier to reserve status was also developed by OSD in the Bottom-Up Review (BUR). The USS JOHN F. KENNEDY will be a "full-up round" operational asset, *not* a replacement for the training carrier. She will provide a readily available surge capability, as well as unique training opportunities for our active and reserve forces. JFK as an operational asset will have the potential for limited duration coverage for forward presence operations. She could deploy on short notice for crisis or conflict resolution with other activated reserves or active squadrons whose CV is in long term maintenance, or a combination of both. USS JOHN F. KENNEDY is scheduled to home port in Mayport, FL, following overhaul in 1995."¹⁶

The ORC will be the ideal platform for sequential co-use by the USMC and USNR TacAir. Since both the USMC and USNR would desire only temporary use of the CV for peacetime training, and in a crisis, with the Marine's need to get ashore as soon as possible, the USNR would then continue full employment of the ORC.

ORC Logistics. The manpower for the ORC is projected to be comprised of 80% USN active duty, 10% TAR (Full Time Support Reserve), and 10% Selected Reserve. It may be advantageous to crew a few USMC personnel in a liaison capacity. The ORC will continue to be funded similar to other CV/N's. The Aviation Consolidated Allowance Lists (AVCAL) for supply and the Aircraft Intermediate Maintenance

Department (AIMD) could be optimized for both air wings. This process is eased by minimizing the different lots, series, and types of aircraft to be supported, another advantage to eliminating the Tomcat from the Reserve inventory. The ordnance loadout would also be custom to the air wings. Ship's berthing and work spaces are ample aboard CV-67, as it was built to accommodate an air wing with more than 100, mostly multi-crew aircraft. In fact, with either the USMC or USNR air wing embarked, CV-67 could sufficiently embark additional capabilities, perhaps other components of the ACE.

Peacetime Employment of the ORC. In peacetime, the ORC would deploy regularly for six months with the USMC air wing embarked as part of an 18 month forward presence and training cycle. This 18 month cycle would be adequate to maintain CV experience within the USMC air wing. The resulting 12 months between USMC deployments would allow sufficient training time to fulfill the air wing's other MAGTF training needs which are best accomplished at CONUS facilities.

In turn, the ORC would embark the CVWR for a 17 day Annual Training (AT) period once each 18 months, opposite the USMC deployments. The CVWR would conduct AT, during alternate years, at the Naval Strike Warfare Center (NSWC), Fallon, NV. Additionally, the CVWR would be available to work with the ORC, utilizing the reservist's on Active Duty for Training (ADT) deployments of various lengths.

Between deployments, both the USMC air wing and the CVWR would maintain their CV proficiency through Carrier Qualification (CQ) periods aboard the ORC. As the Navy continues to get smaller, the resulting reduced student through-put from flight training will

proportionally decrease Chief of Naval Air Training (CNATRA) CQ flight deck requirements. As it has been clearly agreed that the ORC is not a training carrier (CVT), this smaller CNATRA CQ need would be tasked to any available CV deck, not exclusively to the ORC. The ORC's first priority would be to the USMC TacAir wing and the CVWR respectively. Beyond the USMC and CVWR missions, the ORC would have sufficient open schedule to accommodate other taskings such as the fleet CVs now service between deployments.

Crisis Employment of the ORC. The MAGTF's mission would be the ORC's first priority. In addition to the previously noted tactical advantages that the ORC delivers in the Marine role, the ORC also provides the sorely needed logistical lift, transport, and support of the air wing to the theater of operations. Thus the ORC solves the critical strategic lift and prepositioning problem for USMC TacAir. The ORC would operate within the MAGTF as an integral part of the Amphibious Task Force, as opposed to current CVBG type tasking. The ORC would serve USMC TacAir from CV-67 until the opportunity allows the air wing to disembark to a donated, captured, or constructed expeditionary airfield.

Following service with the Marines, the ORC's inherent flexibility would make for an effective shift to the CVWR mission. If mobilized, the CVWR would either join CV-67 at a forward base or embark upon the ORC's return to CONUS. The ORC would redeploy, this time in the CVBG role.

A Second ORC. The advantages and efficiencies that the ORC will provide lead me to strongly recommend that this concept should be expanded and employed on both coasts with a second ORC established in the Pacific for I MEF and a second CVWR.

As the defense budget continues to shrink, another CV and its active air wing may be lost. With the ORC concept, the Navy can avoid losing a CV's full associated capability.

A second ORC would serve three critical purposes. First, it would save approximately \$900 million over each FYDP. An ORC's operating costs are projected to be \$64 million per-year *less* than an active CV, and a CVWR costs *less* than 60 percent of an active air wing, saving an additional \$85 million per year.¹⁷

Second, the ORC would preserve a CV with a MAGTF and CVWR capability which would otherwise be lost to the budget ax. Although the ORC may not allow the equivalent peacetime forward presence as an active CVBG, the proposed 18 month deployment cycle of ORC embarked USMC TacAir within an ARG would be one solution to the gaps in forward presence of CVBGs. Additionally, in crisis, following the completion of the MAGTF CV mission, the ORC would redeploy for CVBG duty with the CVWR embarked. Again, this is a far better proposition than the total loss of a CV and air wing assets to the budget ax.

Third, the ORC would provide I MEF with the capability it requires for its MAGTF's ACE employment.

The USS Constellation (CV-64) would be the recommended second ORC, as she is the only other conventional CV projected beyond FY-2002.¹⁸

CHAPTER V

THE OPERATIONAL COMMANDER'S ADVANTAGE

Advantage Marines. The ORC offers many advantages to the MAGTF commander. The foremost among these is that it would make his heavy ordnance delivery capability available to him from the very outset of an operation. The second is that, with the ORC as an integral part of the ARG, the MAGTF commander's complete air capability would be under his command, up close, as part of the ACE. The third advantage is that the ORC's embarked Marine assets would be led by a Marine Air Wing Commander, on a flight deck for his exclusive purposes. The fourth advantage is that the MAGTF's TacAir would be ready and able to disembark at the earliest opportunity, to a shore base closer to the ground forces.

The ORC would give the MAGTF commander the ability to produce the desired military condition within his theater of operations. With his complete air-ground team at his disposal, he can properly select that sequence of actions most likely to yield the desired military condition. The immediate presence of the complete ACE would allow the MAGTF commander a full range of options in determining how to apply the resources of his force. Finally, with the ORC present, using the power and agility of his TacAir, the commander could greatly reduce the risk to his forces while executing the selected sequence of operations.

The MAGTF is built to optimize those conditions as embodied in the nine principles of war;¹⁹ objective, offensive, mass, economy of

force, maneuver, unity of command, security, surprise, and simplicity. When employing forces the size of a MEF or MEB, the MAGTF's TacAir must be immediately available to the commander if he is to soundly apply those principles. The warfighting doctrine of the USMC particularly emphasizes the principle of maneuver. The ORC would assure the MAGTF commander of his ability to employ his TacAir to place the enemy off balance, by seizing the initiative through the element of surprise with fixed-wing's rapidly moving, far ranging, concentrated firepower. The ACE's TacAir also provides the security of air superiority and close air support, as well as the critical capabilities of reconnaissance and airborne directed fire control.

The ACE's TacAir assets, as served by the ORC, would allow the MAGTF commander to meet the five tenants of operations;²⁰ which are initiative, agility, depth, synchronization and versatility. The embarked ORC assets would also play a key role in fulfilling the four dynamics of combat power;²¹ maneuver, firepower, protection and consolidating leadership. Finally, the MAGTF commander's TacAir assets are key to the seven combat functions²² of intelligence, maneuver, fire support, air defense, mobility and survivability, logistics and battle command. Without the ORC, the MAGTF commander's TacAir could be totally absent from the area of operation or left to operate from a distant part of the theater under another's command.

Advantage Navy. The ORC offers many advantages to the Carrier Battle Group Commander. Foremost would be the increased experience of the CV crew from working the additional TacAir in peacetime. In the event of a CVWR mobilization, the ORC would be combat ready, fresh from conducting combat operations within the

MAGTF. The second advantage would follow if the CVWR transitioned to an all strike fighter air wing. This change would directly increase the CVWR's combat effectiveness in the ground attack role and significantly ease logistic requirements.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The U.S. Marine Corps needs a flexible, forward deployable air field for successful MAGTF operations. The Naval Reserve Carrier Air Wing needs the same thing for CVBG operations. The CVWR's need will very likely not occur until the USMC's need has been satisfied to its conclusion of movement ashore to a NEAF. Therefore the combined USMC / USNR needs are sequential rather than concurrent which allows both to use, to their separate purposes, the same CV. The ORC has been identified as the USS John F. Kennedy (CV-67), a very capable existing platform. The peacetime priorities for the ORC employment would be cooperatively scheduled under the auspices of AIRLANT. During a crisis, first priority would fall to servicing the MAGTF's TacAir, most probably II MEF requirements. Second priority would be, if mobilized, the CVWR. Finally, the Training Command and other customer needs would be serviced.

I recommend that the CVWR increase its Hornet capacity through the elimination of the Tomcat. The CVWR would become more effective in the strike role and the ORC's ability to support both USMC and USNR would be simplified. I further recommend that a second ORC be established in the Pacific for I MEF, and that a second CVWR be assigned for its employment.

In conclusion, the ORC offers the most efficient use of a CV, both in support of the USMC mission and the Reserve carrier air wing's. While it would deliver for the taxpayers, the most "bang for the buck", it offers a solution to critical, unresolved logistical and tactical problems, which as resolved by the ORC, would greatly enhance the MAGTF's capabilities to fight and win.

NOTES

- 1 Cecil G. Turner, "Close Air Support as Fire Support," Marine Corps Gazette, May 1992, p. 29.
- 2 Duane A. Wills, "Aviation Posture Statement: FY92," Marine Corps Gazette, May 1992, p. 17.
- 3 Terry C. Pierce, "Not a 'CVN Gator'," U.S. Naval Institute Proceedings, June 1993, p. 75.
- 4 Carl E. Mundy, Jr., "Reflections on the Corps . . . Marine Tactical Aviation," Marine Corps Gazette, May 1992, p. 15.
- 5 Eric K. Fippinger, "Naval Aviation's Expeditionary Airfield Capability: Power Projection for the Future," Marine Corps Gazette, October 1993, p. 67.
- 6 U.S. Marine Corps, Warfighting, FMFM 1, Washington: 1989, p. 59.
- 7 Thomas C. Linn, "Who Really Needs Marine TacAir?," U.S. Naval Institute Proceedings, October 1992, p. 41.
- 8 Alan R. Pavsner, "The Sky is Falling (Again)," Marine Corps Gazette, May 1993, p. 34.
- 9 Thomas C. Linn, "Who Really Needs Marine TacAir?," U.S. Naval Institute Proceedings, October 1992, p. 43.
- 10 U.S. Navy Dept., CNO, "Force 2001," Unpublished Presentation Briefing Slides, Washington: September 1993, p. 41.
- 11 Cecil G. Turner, "Close Air Support as Fire Support," Marine Corps Gazette, May 1992, p. 30.
- 12 Thomas C. Linn, "Who Really Needs Marine TacAir?," U.S. Naval Institute Proceedings, October 1992, p. 43.
- 13 Thomas W. Trotter, "The Future of Carrier Aviation," Naval War College Review, Winter 1993, p. 40.
- 14 U.S. Navy Dept., CNO, "Force 2001," Unpublished Presentation Briefing Slides, Washington: September 1993, p. 28.
- 15 Michael E. McBride, "Looking Back or Moving Forward," Marine Corps Gazette, August 1993, p. 36.

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- 16 U.S. Navy Dept., CNO N955D, "Roles and Missions of the Naval Reserve," Unpublished Draft Working Paper, Washington: February 1994, p. 2.
- 17 U.S. Navy Dept., CNO, "Notional Navy Reserve Carrier & Airwing," Unpublished Presentation Briefing Slides, Washington: 1993, p. 6.
- 18 U.S. Navy Dept., CNO, "Carrier and Carrier Air Wing Requirement," Unpublished Briefing Paper, Washington: April 1994, p. 1.
- 19 U.S. Army Dept., Operations, FM 100-5, Washington: 1993, pp. 2-4 - 2-6.
- 20 Ibid., pp. 2-6 - 2-9.
- 21 Ibid., pp. 2-9 - 2-11.
- 22 Ibid., pp. 2-12 - 2-15.

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